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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,772	09/05/2003	Dau Min Zhou	S232-USA	7230
28284 7590 06/20/2007 SECOND SIGHT MEDICAL PRODUCTS, INC. 12744 SAN FERNANDO ROAD BUILDING 3 SYLMAR, CA 91342			EXAMINER KAHELIN, MICHAEL WILLIAM	
			ART UNIT 3762	PAPER NUMBER
			MAIL DATE 06/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/655,772

Applicant(s)

ZHOU ET AL.

Examiner

Michael Kahelin

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3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,22,24-26 and 28-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,22,24-26 and 28-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Request Under 37 C.F.R. 1.75

1. The following is a quotation of section d of 37 C.F.R. 1.75:

The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.

2. Examiner requests that Applicant cite the substrate and gradient composition of platinum and iridium oxide in the originally filed disclosure. The Examiner is unable to discern whether the surface coating comprises two additional elements (i.e. platinum and iridium oxide) on top of an existing substrate (such as described on page 10, line 8), or whether the surface coating is an iridium oxide coating on top of a platinum substrate (such as Figures 7 and 8; and claims 22 and 24-26).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 21, 22, 24-26, 28-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether the claimed electrode comprises two or three elements. It seems that the invention is disclosed and claimed (such as in Figure 7 and claims 24-26) as a platinum or platinum

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gray substrate with an iridium oxide surface coating wherein there is a gradient transition between pure platinum and pure iridium. However, some claim language (such as claims 22 and 38) indicates that the electrode comprises a platinum gray substrate coated with platinum and iridium oxide. In other words, it seems that the disclosure indicates that the electrode comprises two elements: a platinum substrate with an iridium oxide-only coating (i.e. the platinum of the gradient composition is not part of the coating but is already there), not an iridium oxide and platinum coating on top of a platinum substrate. It is unclear whether the platinum of the coating is a positively recited third element, or just part of the substrate. Examiner is interpreting the invention as comprising a gradient composition of platinum and iridium oxide.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 21, 24, 30, 34, 36, 37, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Baker, Jr. (US 4,679,572, hereinafter "Baker").

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7. In regards to claims 21, 34, 36, and 40, Baker discloses an electrode body having a substrate surface (15) and a surface coating comprising a gradient composition of platinum (col. 7, line 9) and iridium oxide (col. 7, line 25; element 20). Please note that the application of the iridium oxide to porous, sintered platinum (col. 7, line 36) will inherently create a gradient composition as shown in Applicant's Figure 7 because the porous surface will incorporate some of the iridium oxide layer, or "follow the lacework contour" as disclosed by Baker at column 7, line 38. Further, the composition will vary from essentially platinum to essentially iridium oxide, as in Figure 7 as well.

8. In regards to claim 24, the surface is rough because it is sintered/porous (col. 7, line 33).

9. In regards to claim 30, because the only two materials present are platinum and iridium oxide, the gradient composition is comprised of complementary fractions of platinum and iridium oxide.

10. In regards to claim 37, the substrate is metal (platinum).

11. Claims 21, 24, 26, 28, 30, 33, 34, 36, 37, and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Brennen et al. (US 2005/0075709, hereinafter "Brennen").

12. In regards to claims 21, 34 and 40, Brennen discloses an electrode body having a substrate (122) and a coating comprising a gradient composition of platinum and iridium oxide (Fig. 4 and par. 0030).

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13. In regards to claim 24, the surface is rough because it is comprised of sintered particles (par. 0030).

14. In regards to claim 26, the surface is abraded (par. 0008).

15. In regards to claim 28, the gradient composition is electroplated (par. 0030).

16. In regards to claim 30, because platinum and iridium oxide are the two components of the gradient composition, the two materials have complementary fractions.

17. In regards to claim 33, the substrate surface is a platinum trace (par. 0030), and platinum is biocompatible because it is implanted into the human body.

18. In regards to claims 36 and 37, the substrate is metal and the gradient composition varies from essentially platinum to essentially iridium oxide (Fig. 4).

19. Claims 21, 30, 31, 33, 34, 36, 37, 39, and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Chow et al. (US 6,389,317, hereinafter "Chow").

20. In regards to claims 21, 34, 39, and 40, Chow discloses a plurality of electrodes (Fig. 4) having a substrate (170), and a surface coating of platinum and iridium oxide (86, 88, and col. 7, line 19).

21. In regards to claim 30, the fractions of platinum and iridium oxide are complementary (1/1 and 0/1 are complementary fractions, regardless of the interaction between the two layers at the interface).

22. In regards to claim 31, Figure 4 shows a stepwise variation in the gradient composition.

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23. In regards to claim 33, the substrate comprises platinum, which is biocompatible (col. 7, line 23).

24. In regards to claim 36, the amount of platinum and iridium oxide varies from essentially platinum to essentially iridium oxide (Fig. 4).

25. In regards to claim 37, the substrate is metal (col. 7, line 23).

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

28. Claims 22, 29, 32, and 38 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Brennen. Brennen discloses the essential features of the claimed invention including utilizing fractalized

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platinum (par. 0030), of which "platinum gray" is a specific type; and because of this fractalized surface, there is an approximately linear gradient from platinum to iridium oxide. Alternatively, Brennen discloses the essential features of the claimed invention except for a platinum material that is platinum gray or a linear gradient from platinum to iridium oxide. It is well known in the art to produce approximately linear gradients between materials to improve adhesion. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Brennen's invention with an approximately linear gradient from platinum to iridium oxide to improve adhesion between the two materials. Further, Brennen discloses the claimed invention but does not disclose expressly the platinum gray material. It would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the fractalized platinum as taught by Brennen with the platinum because applicant has not disclosed that modifying the deposition rate instead of modifying the surface by sintering provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the platinum substrate as taught by Brennen because both fractalized platinum materials are more robust than prior art platinum black materials. Therefore, it would have been an obvious matter of design choice to modify Brennen's invention to obtain the invention as specified in the claims.

29. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baker or Brennen. Baker and Brennen disclose the essential features of the claimed invention except for a surface roughened by sandblasting. It is well known in the art to roughen

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implants by sandblasting to cheaply improve adhesion to other materials, tissue, or lower contact impedance. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to roughen the electrodes of Baker or Brennen by sandblasting to cheaply improve adhesion to other materials, tissue, or lower contact impedance.

Response to Arguments

30. Applicant's arguments with respect to claims 21, 22, 24-26, and 28-40 have been considered but are moot in view of the new ground(s) of rejection, necessitated by amendment.

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kahelin whose telephone number is (571) 272-8688. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MWK

MR
6/11/07

GE
GEORGE R. EVANISKO
PRIMARY EXAMINER

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